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10/560,713	12/15/2005	Richard Chi-Te Shen	US030225US	8549
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NXP, B.V. NXP INTELLECTUAL PROPERTY & LICENSING M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			DAZENSKI, MARC A	
			ART UNIT	PAPER NUMBER
			2621	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary

Application No.

10/560,713

Applicant(s)

SHEN, RICHARD CHI-TE

Examiner

MARC DAZENSKI

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12-15-2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 12 November 2009 have been fully considered but they are not persuasive.

In regards to the drawing objections, Applicant states that descriptive labels are not required under PCT Rule 11.11 and therefore respectfully declines to add descriptive labels to the blank boxes in figures 1-4. The examiner notes that PCT Rule 11.11(a) states that, "the drawings shall not contain text matter, **except** a single word or words, when absolutely indispensable...and, **in the case of electric circuits and block schematic or flow sheet diagrams**, a few short catchwords indispensable for understanding" (emphasis added). Because it is impossible to tell the difference between the various blank rectangular boxes in the figures (e.g., the difference between box 102 and box 104 in figure 1, or the box 122 and box 130 in figure 2), the examiner maintains that a few short catchwords are indispensable for understanding of the figures and therefore maintains the original drawing objection.

On page 10 of the remarks, Applicant argues, "the cited reference of Willis fails to disclose the limitations of 'at times providing video frames of a performance at a slower input rate'...and 'at other times providing video frames of the performance at a faster input rate,'" and further "...in the frame rate multiplier 10, the delayed signal 20 and the real time signal 24 are not provided at different times." The examiner respectfully disagrees.

First, the examiner notes that the section of Willis cited by Applicant was not cited by the examiner in the rejection of claim 1 and therefore Applicant argument regarding the frame rate multiplier (10) is moot. Second, the examiner notes that Willis discloses (see e.g., column 2, lines 41-51) an input video signal that changes between 480p and 720p. As written, the claim does not specify when exactly the "at times" and "at other times" exist or how they are defined; therefore, because Willis discloses a 480p input video signal "at times," and also a 720p input video signal "at other times," the examiner maintains Willis reads on the limitations of the claim.

On page 11 of the remarks, Applicant argues that Willis fails to disclose the remaining limitations of the claim (i.e., from "switching a video display to display frames in a first display scan mode" onward). The examiner respectfully disagrees, and points to the above cited section of Willis which details switching the frame display frequency depending on whether it's a 480p or 720p input video signal. In light of the previously cited section, the examiner maintains that Willis does in fact read on the limitations of the claim.

On page 12 of the remarks, Applicant argues "Gryskiewicz et al fails to disclose the limitations of 'at times providing video frames from a video program source at a slower input rate' and 'at other times providing video frames from the video program source at a higher input rate.'" The examiner respectfully disagrees.

Gryskiewicz discloses that apparatus (100) comprises transmitters (106) and (114) (see, e.g., figure 1) and further that the two transmitters of the system may be combined as one (see column 3, lines 52-53). Still further, Gryskiewicz discloses

receiver (150) which receives both signals (120) and (130). In view of these cited sections of Gryskiewicz, the examiner maintains that the cited reference does in fact read on the limitations of the claim.

On page 12 of the remarks, Applicant argues, "Gryskiewicz et al fails to disclose that the data from the mixer are displayed at the lower rate, i.e., 30Hz." The examiner respectfully disagrees and points to column 6, lines 40-42 and line 61 which disclose that the signal sent to an analog display may have a frame rate of 30Hz.

On pages 13-14 of the remarks, Applicant argues that "Gryskiewicz fails to disclose the limitation of 'a transmitter to transmit the selected frame rate to the video source to provide frames at an average rate depending on the selection,'" and further that Oshima fails to disclose the "user input device" as claimed. The examiner respectfully disagrees.

The examiner notes that Gryskiewicz discloses control block (108) of the system (100) which subsequently sends synchronization signals, field information, and timing information to the receiver (150). The purpose of this control block (108) is to coordinate transmission between transmitter (106) and (114) (see, e.g., column 3, lines 54-65). Because this control block is ultimately responsible for the synchronization and timing of signals to the receiver (150), it therefore must control the transmission of a frame rate in order to provide frames at an average rate depending on a selection. The teachings of Oshima were combined with Gryskiewicz because the latter reference fails to disclose a user input device which allows for the selection of a frame rate and a corresponding display scan mode. Oshima discloses (see, e.g., previously cited column

7, lines 1-12) a user input device (19) which allows a user to select a stereoscopic video output. The stereoscopic video output (also referred to in the reference as "3D video") has a rate of either 60fields/sec (with flicker) or 120fields/sec (without flicker). Because the selection of stereoscopic video output ("display scan mode") corresponds to a changing of frame rate ("frame rate"), and this selection is provided by user input (19), the examiner maintains that the combination of Gyskiewicz and Oshima does in fact read on the limitations of the claim, and therefore the original rejection stands.

A full rejection of the pending claims appears below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4 and 7-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Willis (US Patent 7,106,380), hereinafter referred to as Willis.

Regarding **claim 1**, Willis discloses a frame rate multiplier for liquid crystal display. Further, Willis discloses receiving an input video signal is speeded up by a multiple n of $f(in)$, wherein the frame rate changes in order to suppress flicker, which reads on the claimed, "a method comprising: at times providing video frames of a

performance at a slower input rate; at other times providing video frames of the performance at a faster input rate; switching a video display to display frames in first display scan mode when receiving frames at the slower input rate; and switching the video display to display frames in a second display scan mode when receiving frames at the faster input rate, the second display scan mode being different than the first display scan mode," as disclosed at column 2, line 41 through column 3, line 8.

Regarding **claim 2**, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above.

Regarding **claim 3**, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above.

Regarding **claim 4**, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above.

Regarding **claim 7**, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above.

Regarding **claim 8**, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 16, and 20-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Gryskiewicz et al (US Patent 6,392,712), hereinafter referred to as Gryskiewicz.

Regarding **claim 16**, Gryskiewicz discloses synchronizing interlaced and progressive video signals. Further, Gryskiewicz discloses a combined interlaced video signal with a progressively scanned video signal, which reads on the claimed, "at times providing video frames from a video program source at a slower input rate; displaying the frames received at the slower input rate, at other times providing video frames from the video program source at a higher input rate; combining the frames received at the higher input rate into combined frames at the slower frame rate; and displaying the combined frames at the slower frame rate," as disclosed at column 1, lines 53-59.

Regarding **claim 20**, Gryskiewicz discloses everything claimed as applied above (see claim 16). Further, Gryskiewicz discloses combining fields (124a) and (124b) into a progressive stream and then converting into interlaced form using receiver (150), which reads on the claimed, "wherein multiple frames with a progressive scan format are combined by dropping lines of each frame to form a combined frame with an interlaced format," as disclosed at column 5, lines 13-20, lines 45-50; column 6, lines 43-67; and exhibited in figure 4.

Regarding **claim 21**, the limitations of the claim are rejected in view of the explanation set forth in claim 20 above.

Regarding **claim 22**, Gryskiewicz discloses everything claimed as applied above (see claim 16). Further, Gryskiewicz discloses interlaced video data streams (182) and (184) which are combined at mixer (156), which reads on the claimed, "wherein multiple

frames with an interlaced format are combined by dropping one or more fields of each frame to form a combined frame with an interlaced format," as disclosed at column 7, lines 1-8; column 8, lines 38-43; column 9, lines 3-10; and exhibited in figure 4.

Regarding **claim 23**, the limitations of the claim are rejected in view of the explanation set forth in claim 22 above.

Regarding **claim 24**, the limitations of the claim are rejected in view of the explanation set forth in claim 22 above.

Regarding **claim 25**, the limitations of the claim are rejected in view of the explanation set forth in claim 22 above.

Regarding **claim 26**, Gryskiewicz discloses everything claimed as applied above (see claim 16). Further, the limitations of the claim are rejected in view of the explanation set forth in claim 16 above.

Regarding **claim 27**, Gryskiewicz discloses synchronizing interlaced and progressive video signals. Further, Gryskiewicz discloses a television screen in which separate progressively and interlaced scanned signals may be overlayed to produce a new signal suitable for viewing, which reads on the claimed, "a display device (132) having multiple fixed predetermined display scan modes with corresponding display rates that are independent of the average frame input rate and selectable at least between: a first display scan mode and a second display scan mode that is substantially different than the first display scan mode," as disclosed at column 1, line 48 through column 2, line 11;

receiver (150) which can receive progressive video signals (122) and (130), which reads on the claimed, "an input (122) for video frames of a video program from a video program source with a predetermined standard average input rate that is selectable at least between: a slower average input rate and a faster average input rate that is substantially different than the slower input rate," as exhibited in figure 1; and, software program (300) which uses control logic to control the display of the video frames, which reads on the claimed, "means (136) for selecting the first display scan mode when receiving frames from the video program source at the slower input rate and for selecting the second display scan mode when receiving frames from the video program source at the faster input rate," as disclosed at column 9, lines 59-67 and exhibited in figures 1 and 4.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-6 and 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willis (US Patent 7,106,380), hereinafter referred to as Willis, in view of Duruoze et al (US Patent 6,658,056), hereinafter referred to as Duruoze.

Regarding **claim 5**, Willis discloses everything claimed as applied above (see claim 1). However, Willis fails to disclose repeating the display of frames received at

the slower input rate to provide a required frame rate for the first display scan mode. The examiner maintains it was well known to include the missing limitations, as taught by Duruoz.

In a similar field of endeavor, Duruoz discloses a digital video decoding, buffering, and frame-rate converting method and apparatus. Further, Duruoz discloses a 3-2 pull down by which three fields are generated from two fields of a frame of the original picture by displaying one of the fields twice, which reads on the claimed, "repeating the display of frames received at the slower input rate to provide a required frame rate for the first display scan mode," as disclosed at column 5, lines 1-21.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the frame rate multiplier for liquid crystal display of Willis to include a 3-2 pull down by which three fields are generated from two fields of a frame of the original picture by displaying one of the fields twice, as taught by Duruoz, for the purpose of eliminating flicker in multiple display scan modes.

Regarding **claim 6**, Willis discloses everything claimed as applied above (see claim 1). However, Willis fails to disclose dropping some of the frames received at the higher input rate to provide a required frame rate for the second display scan mode. The examiner maintains it was well known to include the missing limitations, as taught by Duruoz.

In a similar field of endeavor, Duruoz discloses a digital video decoding, buffering, and frame-rate converting method and apparatus. Further, Duruoz discloses implementing frame-skipping required in audio-visual synchronization during a trick-play

operation, which reads on the claimed, "dropping some of the frames received at the faster input rate to provide a required frame rate for the second display scan mode," as disclosed at column 5, line 66 through column 6, line 9.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the frame rate multiplier for liquid crystal display of Willis to include implementing frame-skipping required in audio-visual synchronization during a trick-play operation, as taught by Duruo, for the purpose of eliminating flicker in multiple display scan modes.

Regarding **claim 9**, Willis discloses everything claimed as applied above (see claim 1). However, Willis fails to disclose the method further comprises receiving a user input command to change the input rate; and changing the input rate in response to the user input command to change the input rate. The examiner maintains that it was well known in the art to include the missing limitations, as taught by Duruo.

In a similar field of endeavor, Duruo discloses a digital video decoding, buffering, and frame-rate converting method and apparatus. Further, Duruo discloses control logic (80) specifying which fields are repeated or skipped according to commands such as trick play mode commands, which reads on the claimed, "the method further comprises receiving a user input command to change the input rate; and changing the input rate in response to the user input command to change the input rate," as disclosed at column 16, lines 13-45.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the frame rate multiplier for liquid crystal display

of Willis to include control logic (80) specifying which fields are repeated or skipped according to commands such as trick play mode commands, as taught by Duruoaz, for the purpose of eliminating flicker in multiple display scan modes.

Regarding **claim 10**, the limitations of the claim are rejected in view of the explanation set forth in claim 9 above.

Regarding **claim 11**, Willis discloses everything claimed as applied above (see claim 1). However, Willis fails to disclose wherein the received frames are provided by a medium player that provides video frames at a controllable average input rate. The examiner maintains it was well known in the art to include the missing limitations, as taught by Duruoaz.

In a similar field of endeavor, Duruoaz discloses a digital video decoding, buffering, and frame-rate converting method and apparatus. Further, Duruoaz discloses audio and video presentation system (30) with a program signal input (32) which may be in the form of an antenna, a cable, CD-ROM or other medium through which a digital input signal is received, which reads on he claimed, "wherein the received frames are provided by a medium player that provides video frames at a controllable average input rate," as disclosed at column 8, lines 8-14.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the frame rate multiplier for liquid crystal display of Willis to include audio and video presentation system (30) with a program signal input (32) which may be in the form of an antenna, a cable, CD-ROM or other medium

through which a digital input signal is received, as taught by Duruoz, for the purpose of eliminating flicker in multiple display scan modes.

Regarding **claim 12**, the limitations of the claim are rejected in view of the explanation set forth in claim 11 above.

Regarding **claim 13**, Willis discloses everything claimed as applied above (see claim 11). However, Willis fails to disclose wherein the medium player includes user input apparatus for providing a command to change the average input rate. The examiner maintains it was well known in the art to include the missing limitations, as taught by Duruoz.

In a similar field of endeavor, Duruoz discloses a digital video decoding, buffering, and frame-rate converting method and apparatus. Further, Duruoz discloses control input device (33), which reads on he claimed, "wherein the medium player includes user input apparatus for providing a command to change the average input rate," as disclosed at column 8, lines 8-25.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the frame rate multiplier for liquid crystal display of Willis to include control input device (33), as taught by Duruoz, for the purpose of providing a user with the ability to affect trick-play modes.

Regarding **claim 14**, Willis discloses everything claimed as applied above (see claim 1). Further, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above except for wherein the display is a CRT. The examiner maintains that it was well known in the art to include the missing limitations, as taught by Duruoz.

In a similar field of endeavor, Duruoz discloses a digital video decoding, buffering, and frame-rate converting method and apparatus. Further, Duruoz discloses video presentation subsystem (34) which reads on he claimed, "wherein the display is a CRT," as disclosed at column 8, line 16 and exhibited in figure 1.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the frame rate multiplier for liquid crystal display of Willis to include video presentation subsystem (34), as taught by Duruoz, for the purpose of displaying a selected video to a user.

Regarding **claim 15**, Willis discloses everything claimed as applied above (see claim 1). Further, the limitations of the claim are rejected in view of the explanation set forth in claim 14 above.

Claims 17-19, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gyskiewicz et al (US Patent 6,392,712), hereinafter referred to as Gyskiewicz, in view of Oshima et al (US Patent 6,574,423), hereinafter referred to as Oshima.

Regarding **claim 17**, Gyskiewicz discloses everything claimed as applied above (see claim 16). However, Gyskiewicz fails to disclose wherein multiple frames with a progressive scan format are combined by combining some of the lines of each frame together to form a combined frame with a progressive scan format. The examiner maintains it was well known in the art to include the missing limitations, as taught by Oshima.

In a similar field of endeavor, Oshima discloses a high-resolution optical disk for recording stereoscopic video, optical disk reproducing device, and optical disk recording device. Further, Oshima discloses utilizing a progressive scan signal to generate odd interlace signals (79a) and (79b) and even interlace signals (80a) and (80b) and then combining them to obtain progressive signals, which reads on the claimed, "wherein multiple frames with a progressive scan format are combined by combining some of the lines of each frame together to form a combined frame with a progressive scan format," as disclosed at column 11, lines 16-67 and exhibited in figures 20-22.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the synchronizing interlaced and progressive video signals of Gryskiewicz to include utilizing a progressive scan signal to generate odd interlace signals (79a) and (79b) and even interlace signals (80a) and (80b) and then combining them to obtain progressive signals, as taught by Oshima, for the purpose of eliminating flicker in multiple display scan modes.

Regarding **claim 18**, the limitations of the claim are rejected in view of the explanation set forth in claim 17 above.

Regarding **claim 19**, the limitations of the claim are rejected in view of the explanation set forth in claim 18 above.

Regarding **claim 40**, Gryskiewicz discloses synchronizing interlaced and progressive video signals. Further, Gryskiewicz discloses a television screen which can play NTSC or PAL video frames, which reads on the claimed, "a video display for

displaying video frames from a video source at one of a multitude of different predetermined display scan rates," as disclosed at column 1, lines 38-67; and,

receiver (150) transmits video to an analog display, which reads on the claimed, "a transmitter to transmit the selected frame rate to the video source to provide frames at an average rate depending on the selection," as disclosed at column 8, lines 59-65 (wherein the act of transmitting video implies there is some sort of transmitter involved).

However, Gryskiewicz fails to disclose a user input device for selecting a frame rate and a corresponding display scan mode of the video display from among multiple different predetermined display scan modes, the video frame display rate of the video display depending on the display scan mode. The examiner maintains it was well known in the art to include the missing limitations, as taught by Oshima.

In a similar field of endeavor, Oshima discloses a high-resolution optical disk for recording stereoscopic video, optical disk reproducing device, and optical disk recording device. Further, Oshima discloses a viewer instructing a stereoscopic video output to be processed via input unit (19), which reads on the claimed, "a user input device for selecting a frame rate and a corresponding display scan mode of the video display from among multiple different predetermined display scan modes, the video frame display rate of the video display depending on the display scan mode," as disclosed at column 7, lines 1-12.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the synchronizing interlaced and progressive video signals of Gryskiewicz to include a viewer instructing a stereoscopic video output

to be processed via input unit (19), as taught by Oshima, for the purpose of providing a user with the ability to affect trick-play modes.

Claims 28-30, and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gryskiewicz et al (US Patent 6,392,712), hereinafter referred to as Gryskiewicz, in view of Willis (US Patent 7,106,380), hereinafter referred to as Willis.

Regarding **claims 28-30**, the examiner maintains they are the corresponding apparatus to the method of claims 2-4, respectively, and are therefore rejected in view of the explanation set forth in claims 2-4 above.

Regarding **claim 33**, the examiner maintains the claim is the corresponding apparatus to the method of claim 7 and is therefore rejected in view of the explanation set forth in claim 7 above.

Regarding **claims 34**, the examiner maintains it is the corresponding apparatus to the method of claim 8, and is therefore rejected in view of the explanation set forth in claim 8 above.

Claims 31-32, and 35-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gryskiewicz et al (US Patent 6,392,712), hereinafter referred to as Gryskiewicz, in view of Willis (US Patent 7,106,380), hereinafter referred to as Willis, in view of Duruoiz et al (US Patent 6,658,056), hereinafter referred to as Duruoiz.

Regarding **claims 31-32 and 35-39**, the examiner maintains they are the corresponding apparatus to the method of claims 5-6 and 9-13, respectively, and are therefore rejected in view of the explanation set forth in claims 5-6 and 9-13 above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARC DAZENSKI whose telephone number is (571)270-5577. The examiner can normally be reached on M-F, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571)272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
Supervisory Patent Examiner, Art Unit 2621

/MARC DAZENSKI/
Examiner, Art Unit 2621